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## Teaching experience

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| 2019 Fall | Introduction to Automation and Scada: Bsc Software Technology (5 ECTS) |
| 2019 Spring | Smart Buildings: Master Energy and Software Technology (5 ECTS) |
| 2019 Spring | Microgrids: BSc Energy Technology (5 ECTS) |
| 2018 Spring | Smart Grids: BSc Energy Technology (10 ECTS) |
| 2017 Spring | Smart Grids: BSc Energy Technology (7 ECTS) |

## Educational practice - Basis / values

My objective as a teacher is to motivate my students to develop their own learning interests and critical thinking, as I consider myself a constant learner. Two different aspects rise in my teaching philosophy: a professor and a supervisor. Even as a young professor, mostly in bachelor's courses, I seek to promote critical thinking about real-world problem solving and stimulate the students to create practical solutions. As a supervisor for bachelor's students in semester projects or complex assignments, I guide them in order to guarantee scientific methodologies and stimulate academic skills regarding research, writing or other activities related to my day life experience.

Although there are many different learning styles, I believe that students need to reflect by themselves after a new concept is presented. This can be done inside the classroom or as extra-class activities. This allows critical thinking and the application of the explanatory theory. In my experience, students tends to underestimate the complexity of the concepts and apply misunderstood concepts when evaluated.

The application of technology and computer-based pedagogical tool in the classroom such as Socrative, Poll Everywhere, Padlet, YouTube, Forums, Wikis, BlackBoard assignment, etc., as well as, technical engineering tools, such as PowerFactory or HOMER Energy platform can promote meaningful learning through collaborative work and practical implementations.

With the world progressively becoming reliant on digital services, it is fundamental to integrate conventional ways of teaching and learning with new technologies. New students are more prone to gather much more information than what we can provide in a classroom. It is our role, as teachers, to facilitate this transition and redirect the student attention for relevant information.

## Formal pedagogical training

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| 2017-2018 | Lecture Training Programme (10 ECTS): Centre for Teaching and Learning, University of Southern Denmark, Denmark. |

## Master Supervision

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| 2019 | Mads Emil Blønd Andersen & Lau Holm Albertsen: Decarbonisation of the Electricity Sector through Tax Modernisation, University of Southern Denmark, Denmark. |
| 2017 | Casper Gellert Olsen, Social-Economic-Technical Analysis of Energy System Designs on Small Island, University of Southern Denmark, Denmark. |

## Bachelor Supervision

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| 2018 | Christoffer Brow Wunsch, Magnus Gadegaard, Michella Biesbjerg Nielsen, Jeanette Maria Pedersen, Jonas Schmidt Christensen: The Ærø electrification ferry, University of Southern Denmark, Denmark. |
| 2017 | Jonathan Malte Roskam-Hemmingsen and Rasmus Frølich Riis: Bench-Marking Denmark's Competitiveness as a Place for Data Centers, University of Southern Denmark, Denmark. |
| 2017 | Amalie Møller Jensen, Rasmus Runge Bechsgaard: Cristopher Håkansson Larsen and Lasse Kappel Mortensen: Microgrid vs Interconnector, University of Southern Denmark, Denmark. |

## Research outputs

### Methodology for a Large Scale Building Internet of Things Retrofit
Dzulkifly, S., Aris, H., Jørgensen, B. N. & Santos, A. Q., 25. Aug 2020, (In preparation) *8th International Conference on Information Technology and Multimedia: ICIMU 2020.* IEEE Computer Society Malaysia

### Implementing Dynamic Electricity Taxation in Denmark
Albertsen, L., Andersen, M., Boscán, L. & Santos, A. Q., Aug 2020, In : Energy Policy. 143, 14 p., 111543.

### High Impedance Fault Detection and Location in Combined Overhead Line and Underground Cable Distribution Networks Equipped with Data Loggers
Khavari, S., Dashti, R., Shaker, H. R. & Santos, A. Q., 7. May 2020, In : Energies. 13, 9, 15 p., 2331.

### Analysis of Energy Storage Technologies for Island Microgrids: A Case study of the Ærø Island in Denmark
Santos, A. Q., Ma, Z., Agergaard, M., Frejo Rasmussen, S. & Jørgensen, B. N., 18. Feb 2020, (Accepted/In press).

### Analysis of energy storage technologies for island microgrids: A case study of the Æro Island in Denmark
Santos, A., Ma, Z., Agergaard, M., Rasmussen, S. F. & Jorgensen, B. N., Feb 2020, *2020 IEEE Power and Energy Society Innovative Smart Grid Technologies Conference, ISGT 2020.* IEEE, (Power & Energy Society Innovative Smart Grid Technologies Conference).

### Determining an Accurate Fault Location in Electrical Energy Distribution Networks in the Presence of DGs using Transient Analysis
Gord, E., Dashti, R., Najafi, M., Santos, A. Q. & Shaker, H. R., Feb 2020, In : Measurement. 151, 107270.

### A new real-time multi-agent system for under frequency load shedding in a smart grid context
Santos, A. Q., Monaro, R., Coury, D. & Oleskovicz, M., Sep 2019, In : Electric Power Systems Research. 174, 105851.

### Peer-to-Peer Trading Solution for Microgrids in Kenya
Ma, Z., Bloch-Hansen, K. E. O., Wonsbek Buck, J., Kruse Hansen, A., Juul Henriksen, L., Thielsen, C. F., Santos, A. Q. & Jørgensen, B. N., 2. Nov 2018, *2018 IEEE PES/IAS PowerAfrica.* IEEE, p. 420-425

### Framework for microgrid design using social, economic, and technical analysis
Santos, A. Q., Ma, Z., Gellert Olsen, C. & Jørgensen, B. N., 24. Oct 2018, In : Energies. 11, 10, 22 p.

### A Holistic Fuzzy Measure for Load Priority in Under Frequency Load Shedding Schemes
Santos, A. Q., Shaker, H. R. & Jørgensen, B. N., 2018, *Proceedings of the 2018 International Symposium on Advanced Electrical and Communication Technologies (ISAECT).* Arioua, M., Mohammed, B. & Srifi, M. N. (eds.). IEEE, 6 p.

### OpenRelay: Open Source Protection Algorithms for Electric Power System Relays
Monaro, R., Santos, A. Q., Santo, S., Coury, D. & Aguiar, A., 2018, *2018 IEEE Power and Energy Society General Meeting, PESGM 2018.* IEEE, 5 p. 8586454

### Solutions for Remote Island Microgrids: Discussion and analysis of Indonesia's remote island energy system
Ma, Z., Santos, A. Q., Gamborg, F., Fischer Nielsen, J., Meinhard Johannesen, J., Jensen, M. D. H., Pedersen, M. R. & Jørgensen, B. N., 2018, *Proceeding of the 2018 IEEE Power & Energy Society Innovative Smart Grid Technologies Conference (ISGT).* IEEE, p. 493-498 (The International Conference on Innovative Smart Grid Technologies).